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Remarks

Thorough examination by the Examiner is noted and appreciated.

The claims have been amended to further clarify Applicants invention. No new matter has been added.

For example, support for the amendments is found in the Specification at paragraph 0035 and 0036:

"Calls between the mobile stations 24 and users 26 of the PBX 16 are carried out through the E1 lines 20, 22. Since the E1 lines 20, 22 are dedicated ones, any call originating from a wireless mobile station 24 of the plant for intraplant communication to a wired station 26 goes from the base station 10 over the line 20 to a central office of the public network 18 and returns over the line 22 to the PBX 16. To reach a PBX's wired station 26, a user of the mobile station 24 at the plant conveniently dials the four-digit number within the 5000-5999 range assigned to the PBX 16. Software of the base station 10 provides for adding additional digits to the four-digit number - three for a number prefix defining a central office, whose portion - in terms of a numbering plan the PBX 16 is, and three more, if necessary, for area code. Thus, a full unique full network number of a PBX's user, i.e. a wired station 26, is created, and the connection is thus being switched by the public network 18 and directed through the line 22 to the PBX 16 and the selected station 26.

In a similar way, a connection from a wired station 26 and a wireless mobile station 24 is set up through the E1 lines 20, 22. A call originating

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from a wired station 26 of the plant for intraplant communication to a wireless mobile station 24 goes from the PBX 16 over the line 22 to a central office of the public network 18 and returns over the line 20 to the base station 10. To reach a wireless mobile station 24, a user of the wired station 26 at the plant conveniently dials the four-digit number assigned to the mobile station. Software of the PBX 16 similarly provides for adding additional digits to the four-digit number to create a unique full network number of the mobile station 24. Using the number, the connection is thus being processed by the public network 18 and directed through the line 20 to the base station 10, and further - through the air - to the mobile station 24."

Claim Rejections under 35 USC 103

1. Claims 1-4, 6-11, 13-17 and 19-20 stand rejected under 35 USC Section 103(a) as being unpatentable over Cyr (US 6,223,055), and further in view of Speas et al. (US 5,815,114) and Wilson et al. (US 6,317,089).

Cyr discloses a wireless **office** architecture having a private branch exchange (PBX) with a wired extension, and a **wireless base station** couplable to the PBX. The wireless base station and the PBX cooperate to manage a wireless terminal associated with the wireless base station and the wired extension (associated with the PBX) as a unified extension. (see Abstract; Figure 1, items 130 and 140).

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Cyr discloses that the PBX is in communication with (couplable with) **the wireless base station (and mobile stations)** by a communications connection **between the PBX and the wireless base station (within the in-building communication system)** (see col 2, line 67 to col 3, line 7; and Figure 1). On the other hand, the **communication connection to the public switched telephone network (PTSN)** (see items 101 and 102; Figure 1) from the in-building communication system **is only via wireless communication with the wireless base station (not the PBX)**. (see col 3, lines 3-7; Figure 1).

Thus, Cyr does not disclose several aspects of Applicants disclosed and claimed invention.

Cyr does not disclose or suggest "A business telecommunication system capable of connecting wireless mobile stations and wired stations located at a plant to avoid signal communication degradation with relatively higher signal reflecting areas within the plant".

Cyr does not recognize or suggest the problem of

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"communication degradation due to relatively higher signal reflecting areas within the plant", and do not provide a solution thereto.

More importantly, Cyr does not disclose or suggest "at least **two dedicated lines**, at least one line of said at least two dedicated lines **connecting said base station with a public switched telephone network**, another at least one line of said at least two dedicated lines **connecting said public switched telephone network with said private branch exchange wherein communication between the mobile stations and the wired stations is accomplished through the public switched telephone network**".

Rather as previously noted, Cyr discloses that **only the wireless base station** is connected to the **public switched telephone network (PSTN) by wireless communication** and that the communication **between the wireless (mobile) stations and wired stations** is through communication **between the wireless base station and the PBX**.

Cyr does not disclose or suggest that **both the wireless base station and the PBX** are connected with or in communication

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with the PSTN (each by a dedicated line) or disclose or suggest that **communication between the mobile stations and the wired stations is accomplished through the public switched telephone network (PSTN)**. The communications system of Cyr therefore operates by a **different principal of operation** than the communication system of Applicants disclosed and claimed invention and **presents the very problem that Applicants disclosed and claimed invention solves**.

Examiner argues that Applicants have not presented a "novel" concept, but rather that Applicants disclosed and claimed invention only amounts to "a design consideration". Examiner provides no support for this argument and such argument does not help Examiner in producing the elements of Applicants disclosed and claimed invention.

The fact that connecting a PBX to a PSTN is "well known" also does not help Examiner in establishing a "prima facie" case of obviousness. Applicants acknowledge such a system in their discussion of the state of the prior art in paragraphs 001 and 002.

"The fact that references relied upon teach that all aspects

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of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references." *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993).

However, in this case, **Examiner has failed to show all the elements of Applicants invention.**

Moreover, any modification of Cyr to achieve Applicants invention (which is nowhere shown or suggested in the prior art) **would change the principle of operation** of the communication system of Cyr, thus Cyr cannot form the basis of an obviousness rejection.

"If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious." *In re Ratti*, 270 F.2d 810, 123, USPQ 349 (CCPA 1959).

Speas et al., in contrast, discloses a global positioning

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system (GPS) positioning system for locating objects in places where GPS signals do not penetrate.

Examiner postulates that it would be obvious to place a wireless base station within a shielded environment to improve signal communications, and cites Speas1 et al. to support his assertion.

Firstly, Applicants do not claim what Examiner asserts. Secondly, the fact that Speas1 et al. discloses a system for using a GPS system to precisely locate an object or a person using a GPS system in interior spaces or shielded environments (see col 2, lines 17-21) is of little relevance to Applicants disclosed an claimed invention.

Examiner admits Cyr does not address shielded areas in plants but argues that Speas1 et al. addresses "whereby a wireless communication signal multipath can be eliminated, and reliable communication can be attained in circumstances of communication with relatively higher signal reflecting areas at the plant." Applicants respectfully assert that Speas1 et al. do not disclose what Examiner asserts. Rather, Speas1 et al. disclose wired pseudo-satellites within a shielded space

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communicating with a GPS receiver outdoors by cable (wire) where the time signal is delayed to account for **propagation delays in different cable lengths** (see Abstract). Applicants do not claim or disclose using a GPS system or address the problem of delay in signal propagation caused by cables.

Moreover, the fact that shielded environments can cause signal degradation is known has been outlined by Applicants specifically with respect to communications and multipath fading in Applicants discussion of the prior art and the problems presented thereby (see paragraph 007).

Nevertheless, even assuming *arguendo*, a proper motivation for combining the disparate teachings of Speas1 et al. and Cyr, such combination does not produce Applicants disclosed and claimed invention or recognize or suggest a solution to the problem that Applicants have recognized and solved by their disclosed and claimed invention.

On the other hand, Wilson discloses an apparatus for transferring energy between a transceiver in a shielded environment to an antenna in an unshielded environment via a

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capacitive coupler connected by **coaxial cable** to the antenna (see Abstract; col 1, lines 44-52). Thus Wilson discloses and apparatus and method that works by a different principle of operation than both the methods of both Cyr and Speas1 et al.

However, even assuming *arguendo* that Wilson is *analogous art* and there is a legitimate *motivo* to combine the disparate teachings of Wilson with either Cyr or Speas1 et al., which Applicants do not concede, such combination does not produce Applicants disclosed and claimed invention and therefore does not further help Examiner in establishing a *prima facie* case of obviousness.

"Finally, the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Conclusion

The cited references, singly or in combination, fail to

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disclose **all the claim limitations** of Applicants invention,
including:

"at least two dedicated lines, at least one line of said at least two dedicated lines connecting said base station with a public switched telephone network, another at least one line of said at least two dedicated lines connecting said public switched telephone network with said private branch exchange wherein communication between the mobile stations and the wired stations is accomplished through the public switched telephone network"

Based on the foregoing, Applicants respectfully submit that the Claims are now in condition for allowance. Such favorable action by the Examiner at an early date is respectfully solicited.

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In the event that the present invention as claimed is not in a condition for allowance for any other reasons, the Examiner is respectfully invited to call the Applicants' representative at his Bloomfield Hills, Michigan office at (248) 540-4040 such that necessary action may be taken to place the application in a condition for allowance.

Respectfully submitted,

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